LISTING OF CLAIMS:

1. (Currently Amended) A method of generating an output signal comprising a first bandwidth from a plurality of input signals comprising bandwidths less than the first bandwidth, said method comprising:

defining a filter function arranged to decrease signals ~~outside~~ greater than or less than a second bandwidth, the second bandwidth being less than the first bandwidth;

replicating the input signals comprising a third bandwidth that is a multiple of the second bandwidth to generate a number of replicated signals corresponding to the multiple;

filtering the replicated signals according to the filter function to generate filtered signals; and

generating the output signal in response to the filtered signals.

2. (Original) The method of claim 1 wherein the filter function defines a plurality of center frequencies including a predetermined center frequency applicable at the time the filter function filters one of the replicated signals and wherein the one replicated signal includes the predetermined center frequency.

3. (Original) The method of claim 2, wherein the plurality of center frequencies are separated by substantially equal frequencies.

4. (Original) The method of claim 1 wherein said defining the filter function comprises storing instructions for a software algorithm.

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5. (Original) The method of claim 1 wherein said defining the filter function comprises providing a plurality of hardware filters.

6. (Original) The method of claim 1 wherein said input signals further comprise signals comprising the second bandwidth and wherein said filtering comprises filtering the signals comprising the second bandwidth according to the filter function to generate filtered signals.

7. (Original) The method of claim 1 wherein said replicating comprises power dividing.

8. (Original) The method of claim 1 wherein said filtering comprises noise filtering.

9. (Original) The method of claim 1 wherein said filtering comprises band pass filtering wherein the pass band comprises the second bandwidth.

10. (Original) The method of claim 1, wherein said generating comprises combining the filtered signals into the output signal.

11. (Original) The method of claim 1, wherein the first bandwidth comprises the sum of the bandwidths of the input signals.

12. (Original) Apparatus for generating an output signal comprising a first bandwidth from a plurality input signals comprising bandwidths less than the first bandwidth, said apparatus comprising:

a circuit responsive to the input signals comprising a third bandwidth that is a multiple of a second bandwidth less than the first bandwidth to generate a number of replicated signals corresponding to the multiple;

a filter arranged to filter the replicated signals by decreasing signals outside the second bandwidth in order to generate filtered signals; and

an output arranged to generate the output signal in response to the filtered signals.

13. (Original) The apparatus of claim 12 wherein the filter defines a plurality of center frequencies including a predetermined center frequency applicable at the time the filter filters one of the replicated signals and wherein the one replicated signal includes the predetermined center frequency.

14. (Original) The apparatus of claim 13, wherein the plurality of center frequencies are separated by substantially equal frequencies.

15. (Original) The apparatus of claim 12 wherein said input signals further comprise signals comprising the second bandwidth and wherein said filter is arranged to filter the signals comprising the second bandwidth to generate filtered signals.

16. (Original) The apparatus of claim 12 wherein said circuit comprises a power divider.

17. (Original) The apparatus of claim 12 wherein said filter comprises a noise filter.

18. (Original) The apparatus of claim 12 wherein said filter comprises a band pass filter wherein the pass band comprises the second bandwidth.

19. (Original) The apparatus of claim 12, wherein the first bandwidth comprises the sum of the bandwidths of the input signals.

20. (Currently Amended) A method of generating a plurality of output signals each comprising first bandwidth in response to an input signal comprising a second bandwidth that is a multiple of the first bandwidth, said method comprising:

defining a filter function arranged to decrease signals ~~outside~~ greater than or less than the first bandwidth;

replicating the input signal into a number of replicated signals corresponding to the multiple;

filtering the replicated signals according to the filter function to generate the output signals.

21. (Original) The method of claim 20 wherein the filter function defines a plurality of center frequencies including a predetermined center frequency applicable at the time the filter function filters one of the replicated signals and wherein the one replicated signal includes the predetermined center frequency.

22. (Original) The method of claim 21, wherein the plurality of center frequencies are separated by substantially equal frequencies.

23. (Original) The method of claim 20 wherein said replicating comprises power dividing.

24. (Original) The method of claim 20 wherein said filtering comprises noise filtering.

25. (Original) The method of claim 20 wherein said filtering comprises band pass filtering wherein the pass band comprises the first bandwidth.

26. (Original) The method of claim 20, wherein the second bandwidth comprises the sum of the first bandwidths of the output signals.

27. (Original) Apparatus for generating a plurality of output signals each comprising a first bandwidth in response to an input signal comprising a second bandwidth that is a multiple of the first bandwidth, said apparatus comprising:

a replicator arranged to replicate the input signal into a number of replicated signals

corresponding to the multiple; and

a filter arranged to filter the replicated signals to decrease signals outside the first

bandwidth in order to generate the output signals.

28. (Currently Amended) The apparatus ~~method~~ of claim 27 wherein the filter defines a

plurality of center frequencies including a predetermined center frequency applicable at the time

the filter filters one of the replicated signals and wherein the one replicated signal includes the

predetermined center frequency.

29. (Original) The apparatus of claim 28, wherein the plurality of center frequencies are

separated by substantially equal frequencies.

30. (Original) The apparatus of claim 27 wherein said replicator comprises a power

divider.

31. (Original) The apparatus of claim 27 wherein said filter comprises a noise filter.

32. (Original) The apparatus of claim 27 wherein said filter comprises band pass filter

wherein the pass band comprises the first bandwidth.

33. (Original) The apparatus of claim 27, wherein the second bandwidth comprises the

sum of the first bandwidths of the output signals.

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34. (New) The method of claim 1, wherein each of the plurality of input signals comprises a last mile return input signal, and the output signal comprises a composite signal.

35. (New) The apparatus of claim 12, wherein each of the plurality of input signals comprises a satellite uplink signal, and the output signal comprises a satellite composite downlink signal.

36. (New) A communication system including a return path and a forward path, the communication system comprising:

a variable bandwidth signal multiplexer implemented in accordance with the apparatus of claim 12, wherein the output signal is a composite return output signal and each of the plurality input signals is a return input signal, the composite return output signal and the return input signals are on the return path; and

a variable bandwidth signal demultiplexer for generating a plurality of forward output signals in response to a composite forward input signal on the forward path, wherein the variable bandwidth demultiplexer includes a replicator arranged to replicate the composite forward input signal into a predetermined number of replicated signals, and a filter arranged to filter the replicated signals to decrease signals outside the first bandwidth in order to generate the forward output signals,

wherein each of the forward output signals has a first bandwidth, wherein the composite forward input signal has a second bandwidth that is a multiple of the first bandwidth, wherein the predetermined number of replicated signals corresponds to the multiple.

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